

Work Order ID 53593-2

November 9, 2009 12:48:56 PM

SPRIT



Page 1

Item ID: D6005-128
Revision ID: A
Item Name: Crosstube Material

Accept



Setup Start



Stop



Start Date: 11/09/09 Start Qty: 28.00
Required Date: 12/31/09 Req'd Qty: 28.00



Cust Item ID:
Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D6005

Rev A

100

0.00



Purchasing

PURCHASING

Memo

0.00

Purchasing

Issue P/O: 10728 (a) Order as per Dwg D6005 (b) Material: 2.750
x 0.375 wall 7075-T6/T6511 (WW-T-700/7 or QQ-A-225/9 or QQ-A-200/11)
seamless aluminum tube (c) Minimum ultimate tensile strength = 77 ksi (d)
Minimum tensile yield strength = 66 ks

CL 0911109 28

110

0.00



Packaging

Receive & Inspect for Damage & Mat'l Certs

Memo

0.00

Packaging

Ensure material certification is attached

Rec'd 2/2 28

120

0.00



QC

QC6- Inspect dimensions to drawing

Memo

0.00

Quality Control

Ensure Material certification comply to Dwg D6005

2) 8/10/05

counter
(25)

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Item ID: D6005-128
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Accept



Setup Start



Stop



Start Date: 11/09/09 Start Qty: 28.00
Required Date: 12/31/09 Req'd Qty: 28.00



Cust Item ID:
Customer:

Reference:

Approvals: Process Plan:
QC:

Date:
Date:

Tooling:
SPC (Y/N):

Date:
Date:

Run Start
Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw Draw Plan Accept Reject Reject Insp.
Number Rev. Code Qty Qty Number Stamp

130

HandFinish
Hand Finishing

Chemical Conversion Coat per QS1005 4.1

0.00

Memo

0.00

140

QC
Quality Control

QC3- Inspect Part Finish

0.00

Memo

0.00

150

Packaging
Packaging

Identify as per dwg & Stock Location: 46

0.00

Memo

0.00

10-2-8

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Item ID: D6005-128
Revision ID: A
Item Name: Crosstube Material

Accept



Setup Start



Stop



Start Date: 11/09/09 Start Qty: 28.00
Required Date: 12/31/09 Req'd Qty: 28.00



Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:
QC:

Date:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start



Stop



Sequence ID/
Work Center ID

160



QC

Quality Control

Operation
Description

QC21- Final Inspection - Work Order Release

Memo

Set Up/
Run Hours

0.00

0.00

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

10/02/09 JG
ME
10-2-8

Picklist Print

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Work Order ID: 53593



Parent Item: D6005-128RevA



Parent Item Name: Crosstube Material

Start Date: 11/09/09

Required Date: 12/31/09

Comments:

Start Qty: 28.00

Required Qty: 28.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D6005-128PRevA		Purchased	No			110	Each	0.0000	28.0000			



Crosstube material

MF 10-2-08

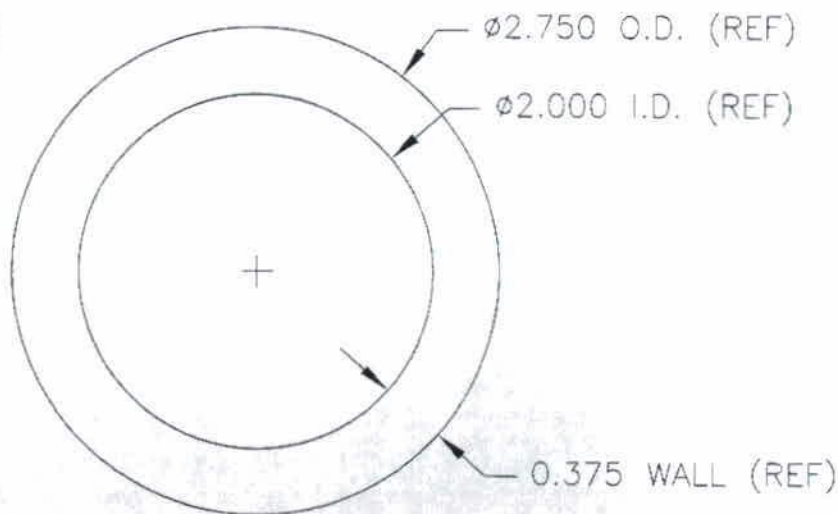


DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>A</i>	APPROVED <i>A</i>	DRAWING NO. D6005	REV. A SHEET 1 OF 1
DATE 00.11.17		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	00.11.17	NEW ISSUE	

u/o 53593

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24 *A*



NOTES

- 1) D6005-XXX CROSSTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 128" LONG TUBE: D6005-128

- 2) MATERIAL: 2.750 OD x 0.375 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi
MINIMUM YIELD TENSILE STRENGTH = 66 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.006 MEAN (± 0.012 INCLUDING OVALITY)
WALL: ± 0.015 MEAN (± 0.038 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.125/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO10728

Purchase Order Date 11/09/09

PO Print Date 11/09/09

Page Number 1 of 2

Order From :

VU-ALU001

ALUMINIUMWERK UNNA AG
UELZENER WEG 36, 59425 UNNA
GERMANY, GERMANY

FAKED
6/29/11/09

Contact Name

Vendor Phone 303 755 5936

Vendor Fax 303 755 5672

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

10127-2607

Net 30

USD

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price
1	D6005-128P A	Crosstube material	3/05/10 Yes	28.00 Each		\$434.0000
Special Inst: AS PER DWG D6005 REV. A. B53593 MATERIAL: 7075-T6/T6511 AS PER WW- T-700/7 OR QQ-A-200/11 SIZE 2.750" X 0.375" WALL SEAMLESS ALUMINUM TUBE MINIMUM ULTIMATE TENSILE STRENGTH = 77 KSI MINIMUM TENSILE YIELD STRENGTH = 66KSI						
2	D6009-129P A	Crosstube Material	3/05/10 Yes	14.00 Each		\$996.0000

MATERIAL CERTIFICATION
REQ'D UPON DELIVERY

No substitution or deviation with
consent.

Certificate of Conformity or Material
Certification required when applicable

Change Nbr: 1

Change Date: 11/09/09



ALUnna ref. no.	34210/1
Customer PO.	PO 10728
Date:	01.07.10

Dart Aerospace PO. 10728 D6005-128
Made in Germany
Dest. Hawkesbury Ont. Canada

free from live plant pests

S:\VERSAND\USA_Packliste\im Lager_USA\34210_1

Abnahmeprüfzeugnis 3.1 - EN 10204:2004

Inspection Certificate 3.1 - EN 10204:2004 / Certificat de Reception 3.1- EN 10204:2004

Kunde: Dart Aerospace Ltd.
Client: 1270 Aberdeen Street
 K6A1K7 Hawkesbury, ON Canada

Zeugnisnummer: 1173/09
Cert No. / No. du certificat:

Bestellnummer: PO 10728
Order No. / No. de commande

Auftrag: 34210/1
Our Reference/Notre Reference:

Produkt: Rohre nahtlos gepresst
Product / Produit: Tubes seamless extruded
Spezifikation: AMS - QQ - A - 200/11E; Spezifikation Dart Aerospace 6005

Werkstoff: 7075
Alloy/Alliage:

Zustand: T 6511
Temper/État

Abmessung: 2,750 INCH x 2,000 INCH x 0,375 INCH x 128,000 INCH
Size / Dimension D6005-128 2.750 x 0.375 x 128

Kennzeichnung: ALUnna - Cert No. 1173/09 - 7075 - T 6511 - Cast No. 82335 - AMS QQA 200/11 - 2.750" OD X 0.375" Wall - Heat
Marking/Marquage: Lot No. 400254 - ALUnna Order Conf. No. 34210/1-1 PO. 10728

Lieferung: 25 pcs. lbs
Delivered Material / Matériel délivre: 908
Country of Manufacture: Germany
 Products are in accordance with applicable RoHS

1. Chemische Analyse / Chemical Analysis / analyse chimique

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Zr	Bi	Sn	Ni
Charge/ min.			1,2		2,1	0,18	5,1						
Cast No. max.	0,40	0,50	2,0	0,30	2,9	0,28	6,1	0,20					
82335	0,08	0,16	1,4	0,05	2,49	0,21	5,8	0,04	0,01	0,02	0,01	0,01	0,0001

Hydrogen content: <0,10 ccm/100 g Al **Elements without indication** < 0,01 % **country of melt manufacturer:** Germany

2. Mechanische Eigenschaften / Mechanical Properties / Valeurs Mécaniques

Anforderungen Requirements	tensile (Rm) ksi	yield (Rp0,2) ksi	elongation 2" %	elongation A %	Hardness HB	Heat Lot No.
min.	77,0	66,0				
max.						
1	86,130	78,880	11,0			400254 - 25 pcs.

8
10/02/05

RMS outside 25 - max. 11,7 µ"

Ergebnis der Prüfungen: Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results: We confirm that the delivery has been tested and applies to the agreements made on receipt of the order
Resultats: Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande